

ABSTRACT

The present invention is directed to an optical space switch accommodating a plurality of input light paths and output light paths. The optical space switch

5 comprises a plurality of polarization control optical switches, each consisting essentially of: polarization control means having elements, one for each input light path, for rotating through  $90^\circ$  the polarizing direction of light information incident from each input light path

10 or otherwise retaining the polarizing direction thereof for output; and a light path routing element for routing the light path for the light information output from the polarization control means in accordance with the polarizing direction of the light information. These

15 polarization control optical switches are arranged in a matrix pattern or coupled in cascade to implement a polarization control optical space switch.

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